

KEY TO THE MALES OF THE NOMINATE SUBGENUS OF
EUSCHISTUS IN SOUTH AMERICA, WITH
DESCRIPTIONS OF THREE NEW SPECIES
(HEMIPTERA: PENTATOMIDAE)

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Abstract.—Keys to subgenera of the genus *Euschistus* Dallas and to the South American species and one subspecies of the nominate subgenus are provided for males. Three new species of the nominate subgenus are described: *E. carbonerus*, *E. incus*, and *E. rohus*. *Euschistus bifibulus* var. *guayaquilinus* Kuhlitz, 1903, is placed in the synonymy of *E. taurulus* Berg, 1878. *E. lizerianus* Pennington, 1922, is transferred to the genus *Agroecus* Dallas.

Most of the South American species of the genus *Euschistus* Dallas, 1851, are contained in the subgenera *Lycipta* Stål, 1862, *Euschistomorphus* Jensen-Haarup, 1922, and *Mitripus* Rolston, 1978. Species of these subgenera may be identified from the literature.

Recent papers on *Lycipta* are a revision by Rolston (1982), a nomenclatural correction by Thomas (1983), and a description of an additional species by Hildebrand and Grazia (1983). Grazia and Hildebrand (1982) transferred *Berecynthus monrosi* Pirán, known only from females, to *Euschistus*. Although they did not place this species in a subgenus, their drawings of the head and spermatheca indicate that *E. monrosi* very likely belongs in the subgenus *Lycipta*. If this is so, there are currently 12 species in this subgenus.

Euschistomorphus, whose salient feature is the apically contiguous juga, contains the species *E. longiceps* Berg, 1891, and *E. albidus* Jensen-Haarup, 1922, both quite distinctive.

Rolston (1978) proposed the subgenus *Mitripus* to contain seven species, but he misidentified two of these species, one of them previously undescribed, for want of examining the relevant types. Grazia (pers. comm., 1983) proposes to correct these errors, raising to eight the number of species in this subgenus.

In the nominate subgenus there are 14 species and one subspecies known from South America, and another species, *E. nicaraguensis*, may occur there since its range includes Panama. Rolston (1974) described or redescribed nine of these taxa, viz. *E. agudus*, *E. bifibulus*, *E. crenator crenator*, *E. crenator orbicular*, *E. emoorei*, *E. heros*, *E. nicaraguensis* and *E. rufimanus*.

Here keys are provided for the males of the subgenera and species-group South American taxa of the nominate subgenus. One uncommon species, *E. quadripunctatus*, is redescribed, and three new species described.

SYSTEMATIC CHANGES

Euschistus taurulus Berg, 1878

Euschistus taurulus Berg, 1878, Anal. Soc. Cient. Arg. 5:305–306.
Euschistus bifibulus var. *guayaquilinus* Kuhlitz in Bayern, 1903, Berliner Entomol. Zeit. 47 (1902):247, 254–256, fig. 2, 2a. **New Synonymy.**

Kuhlitz (1903) included two drawings in his description of *E. bifibulus* var. *guayaquilinus*, one a ventral view of a male. This drawing shows quite clearly a median, obtuse tooth on the posterior pygophoral margin, a character which in combination with the form of the humeri and widely spaced, posteriorly inclined pronotal denticles is sufficient to identify the insect as *E. taurulus*, a common species throughout South America except in the extreme northwest.

Agroecus lizerianus (Pennington), **New Combination**

Euschistus lizerianus Pennington, 1922, Physis 6:316–317.

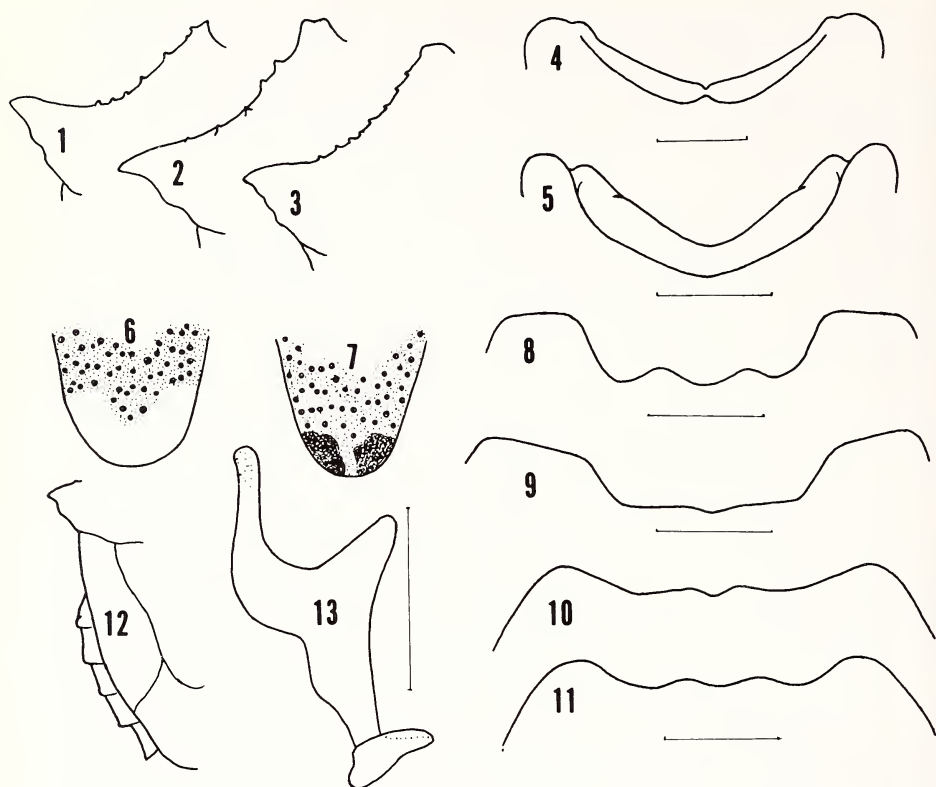
The female type in the Drake collection, National Museum of Natural History, Washington, D.C., was examined. The form of the genital plates and double row of setae on the interior femoral surfaces, with each seta arising from a small tubercle, place this species in the genus *Agroecus* Dallas, 1851. The species is apparently distinct from those already in *Agroecus*.

KEY TO SUBGENERA FOR MALES

- 1. Jugal contiguous or nearly so before tylus for distance subequal to or greater than diameter of eye *Euschistomorphus*
- Jugal often convergent but usually well separated apically, rarely briefly contiguous 2
- 2(1). Genital cup with pale membranous cushion on each lateral wall, this cushion running just beneath anterolateral portion of rim then bending ventrad near anterior wall of genital cup *Lycipta*
- Genital cup with dark rigid carinae or denticles on lateral walls 3
- 3(2). Pair of proctigeral tubercles located about midway between apex and base of proctiger or nearer base than apex; rim of genital cup interrupted on each side of superior ridge by diagonal depression (excepting *E. convergens*) *Mitripus*
- Proctigeral tubercles located on distal half of proctiger; anterolateral and anterior portions of genital cup rim continuous *Euschistus*

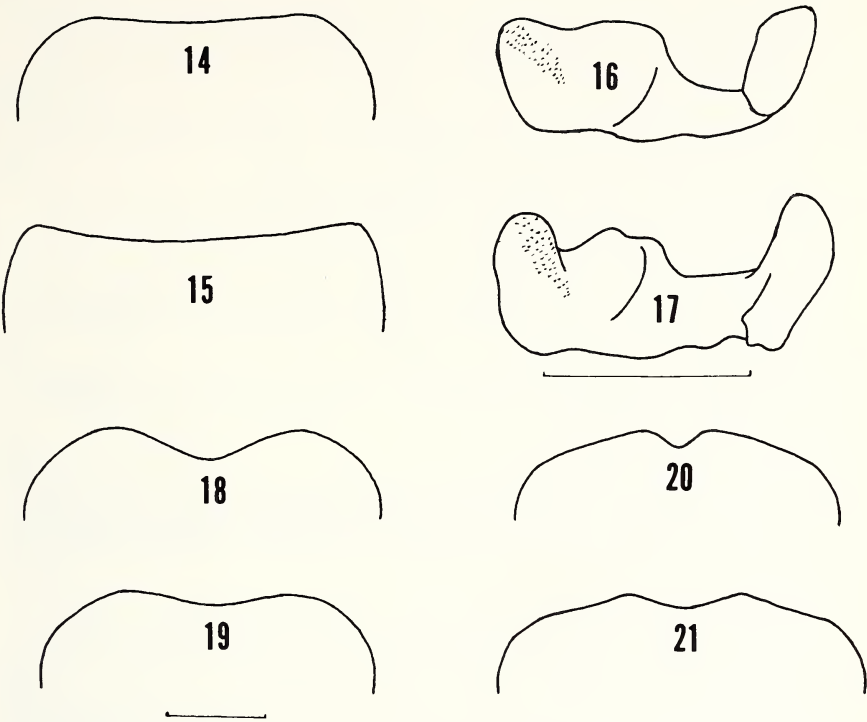
KEY TO SPECIES AND SUBSPECIES FOR
MALES OF NOMINATE SUBGENUS

- 1. Evaporative areas with dark punctures 2
- Evaporative areas lacking dark punctures, occasionally with small reddish spots 5
- 2(1). Denticles on pronotum widely spaced (Fig. 1); tylus usually acute apically *rufimanus* Stål
- Denticles on pronotum closely spaced, most separated by distance no greater than length of denticle (Fig. 22); tylus rounded apically 3



Figs. 1-13. 1-3. Anterolateral pronotal margin and humerus. 1. *E. rufimanus*. 2. *E. quickua*. 3. *E. taurus*. 4, 5. Posterior margin of pygophore and inferior ridge, caudal view. 4. *E. taurus*. 5. *E. bifibulus*. 6, 7. Scutellar apex. 6. *E. heros*. 7. *E. quadripunctatus*. 8, 9. Posterior pygophoral margin, caudal view. 8. *E. atrox*. 9. *E. nicaraguensis*. 10, 11. Variation in posterior pygophoral margin of *E. emorei*, caudoventral view. 12. Connexival margin of *E. quickua*. 13. Paramere of *E. quickua*. Dimensional lines equal 0.5 mm.

- 3(2). Scutellar apex with pale macule or broad border (Fig. 6); sutures between sternites black except laterad of spiracles *heros* (Fabricus) 4
- Scutellar apex usually unmarked, occasionally with narrow pale border; sutures between sternites usually concolorous with sternites 4
- 4(3). Anterior disk of pronotum convex in profile; posterior margin of pygophore from caudal view with moderately deep emargination slightly sinuous at bottom (Fig. 9) *nicaraguensis* Rolston
- Anterior disk of pronotum an inclined plane in profile; posterior margin of pygophore trisinuately emarginate from caudal view (Fig. 8) *atrox* (Westwood)
- 5(1). Pair of brown calluses on apex of scutellum separated by small pale area (Fig. 7) *quadripunctatus* Stål
- Apex of scutellum not so calloused 6



Figs. 14–21. 14, 15. Posterior pygophoral margin, caudoventral view. 14. *E. agudus*. 15. *E. backhauseni*. 16, 17. Parameres. 16. *E. agudus*. 17. *E. backhauseni*. 18, 19. Variation in posterior pygophoral margin of *E. crenator crenator*, caudoventral view. 20, 21. Variation in posterior pygophoral margin of *E. crenator orbiculator*, caudoventral view. Dimensional lines equal 0.5 mm.

- 6(5). Humeri produced into short spine usually directed anterolaterad (Fig. 25) *incus* new species
- Humeri produced laterad, obtuse to spinose 7
- 7(6). Most denticles on pronotum separated from each other by distance equal to or greater than length of denticle (Figs. 2, 3) 8
- Most denticles on pronotum closely spaced, adjacent denticles usually contiguous basally or separated by distance less than length of denticle 10
- 8(7). Lateral margins of abdomen strongly serrate (Fig. 12); tylus surpassing juga, separated apically from each jugum by small incision; parameres with long stout process (Fig. 13) *quickua* Pirán
- Lateral margins of abdomen weakly serrate; tylus and juga subequal in length, not separated apically by distinct incisions; parameres lacking process 9
- 9(8). Posterior margin of pygophore smoothly concave from caudal view (Fig. 5); rim of genital cup on each side of superior ridge smoothly rounded; serrated carina within genital cup on each lateral wall *bifibulus* (Palisot de Beauvois)
- Posterior margin of pygophore with small protuberance mesially (Fig. 4); rim of

genital cup on each side of superior ridge with thin black carina which bends into genital cup near its termination about midway between superior and inferior ridges; carina within genital cup on each lateral wall entire, with one denticle anteriorly

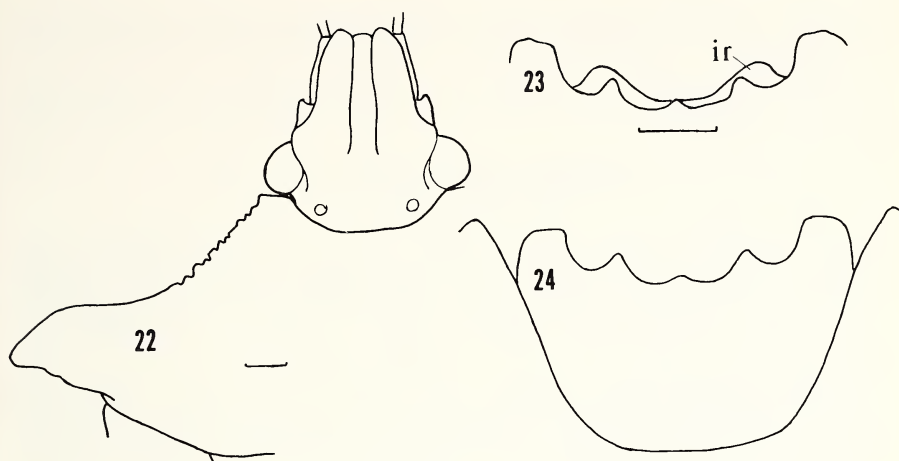
- *taurus* Berg
- 10(7). Slight medial protuberance on posterior margin of pygophore minutely notched from caudoventral view (Fig. 34) *rohus*, new species
- Posterior margin of pygophore without median tubercle 11
- 11(10). Conspicuous ivory macule on apex of scutellum; humeri stout, spinose, almost entirely black laterad of hemelytra; width across humeri usually 7.0 mm or more, rarely less 12
- Any ivory mark on apex of scutellum confined to narrow border; humeral shape varies, black usually marginal or absent; width across humeri rarely as great as 7.0 mm 14
- 12(11). Antennae uniformly sordid yellow to rufous *agudus* Rolston
- Each of last 2 antennal segments dark brown to black with broad pale band basally 13
- 13(12). Pronotal denticles black *carboner*, new species
- Pronotal denticles brownish yellow *backhauseni* Berg
- 14(11). Dorsal punctation on pronotum nearly uniform in density; black punctures if any not concentrated along denticular margin; emargination in posterior margin of pygophore broad, shallow, sinuous to subquadrate from caudoventral view (Figs. 10, 11) *emoorei* Rolston
- Punctures along denticular margin usually crowded, black; posterior margin of pygophore either sinuous and mesially concave, or convex with shallow concavity mesially 15
- 15(14). Posterior margin of pygophore sinuous, concave mesially from caudoventral view (Figs. 18, 19) *crenator crenator* (Fabricius)
- Posterior margin of pygophore convex with narrow shallow concavity mesially from caudoventral view (Fig. 20); rarely sinuously convex with broad shallow concavity mesially *crenator orbiculator* Rolston

Euschistus quadripunctatus Stål, 1860

Figs. 7, 22–24

Euschistus quadripunctatus Stål, 1860, p. 20

Description. Head as long as wide across eyes, 2.3–2.5 mm. Margins of head obtusely angular before eyes, briefly subparallel before apex of antenniferous tubercles, 1.1–1.2 mm wide here, slightly incised at apex, dorsally bronze black blending to dark brown on disk (Fig. 22). Slight submarginal impression before eyes, base of tylus somewhat elevated, disk otherwise rather flat; punctation even (excepting impunctate area mesad of each eye) deep, coarse, black or fuscous. Distance between outer margins of ocelli 1.2–1.3 mm. Antenniferous tubercles largely visible from above. Basal segment of antennae not quite reaching apex of head, sordid yellow with fuscous streak laterally; segments 2–5 fuscous, superior surface of 2 sometimes pale, 3–4 narrowly and 5 broadly annulated at base with sordid yellow; length of segments 0.6–0.8, 1.1–1.2, 1.1–1.4, 1.6–1.7, 1.8 mm. Head sordid yellow beneath with black streak from eyes along suture above antenniferous tubercles; punctation concolorous with sclerites, moderately coarse along buccalae, finer elsewhere. Bucculae obtusely lobed anteriorly, evanescent at base of head, subequal in length to basal



Figs. 22–24. *E. quadripuntatus*, holotype. 22. Head and pronotum in part. 23. Posterior pygophoral margin and inferior ridge (ir) caudal view. 24. Pygophore, caudoventral view. Dimensional lines equal 0.5 mm.

segment of rostrum; remaining rostral segments 1.8–1.9, 1.2–1.4, 0.9–1.0 mm in length.

Pronotum 7.7–8.4 mm wide at humeri, 2.4–2.7 mm long at meson; punctation on disk moderately dense and strong, becoming fine, dense, confused along anterolateral margins and on humeri. Humeral angles produced laterad, elevated, ivory at very apex and on posterolateral margin. Denticles small, closely spaced, black. Ivory spot toward meson on posterior border of cicatrices, disk otherwise yellowish brown deepening to black where punctation confused. Scutellum longer than wide at base, 3.8–4.0 mm wide basally, 4.1–4.5 mm long; frena reaching about $\frac{2}{3}$ distance from base to apex; disk somewhat rugose; punctation uniform; fovea in each basal angle small, black; pair of finely rugose dark brown calluses on apex of scutellum separated by small pale area. Punctation on coria less dense than that on scutellum; white callus at end of radial vein; membrane brown, veins simple or branched. Connexiva partially exposed; punctation fine, shallow, dense; each segment sometimes with narrow transverse ivory line at base, otherwise not conspicuously alternated.

Venter sordid yellow, concolorously punctate. Thorax with 4 black spots, one on each subcoxae, one on each mesopleuron near distal end of supracoxal cleft. Evaporative areas matte, rugose, reaching nearly half way from ostiole to lateral thoracic margins. Mesocoxae and metacoxae each with single dark spot on anterior surface; femora and tibiae with many black spots; basal tarsal segments, and sometimes others, darkest apically. Spiracles black; elongated black spot at anterolateral angles of all sternites bearing spiracles.

Posterior margin of pygophore broadly emarginate, emargination containing 4 concavities (Figs. 23, 24). Inferior ridge largely visible from caudal view.

Length 11.5–12.5 mm.

Distribution. Brazil (Guanabara, before 1960 the Federal District coextensive with Rio de Janeiro).

Comment. Redescribed from 2 males, one the holotype in the Naturhistoriska Riksmuseet, Stockholm.

***Euschistus incus*, new species**

Figs. 25–30

Description. Dorsum light brown to light castaneous or gray; punctuation light castaneous to black, somewhat fine, often in aggregations on pronotum. Brownish yellow beneath, sometimes finely flecked, tinted or blotched with orange or red; punctuation almost entirely concolorous, very fine on aciculate abdominal venter. Length 9.7–10.9 mm.

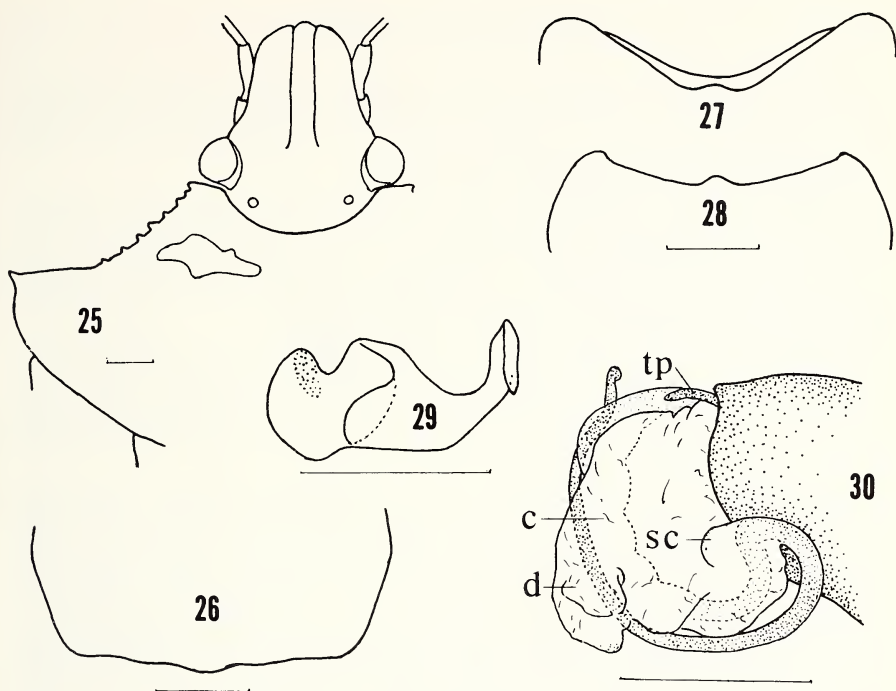
Width and length of head subequal, 2.1–2.3 mm wide across eyes; lateral jugal margins briefly parallel or subparallel above apex of antennifers; tylus as long as or slightly longer than juga (Fig. 25). Basal 3 segments of antennae nearly concolorous with ventral surface of head, last 2 segments darker, usually basal segment and sometimes basal 3 segments fuscous dotted; basal segment not reaching apex of head; length of segments 0.5–0.6, 0.7–0.9, 1.1–1.3, 1.1–1.3, 1.1–1.2 mm. Rostral segments 2–4 about 1.6–1.8, 0.7–1.0, 0.8–0.9 mm.

Pronotum 2.2–2.5 mm long at meson, 2.6–2.8 times as wide across humeri. Denticles on anterolateral margins of pronotum concolorous with adjacent disk, sometimes with black punctures on base, nearly always discrete and sometimes widely separated, occasionally as few as 5 denticles on a side. Humeri moderately produced; apex acute, usually spinose, directed anterolaterad or rarely laterad.

Scutellum usually a little longer than wide at base, 3.3–3.9 mm across base; fovea in basal angles small, shallow, blackish; disk rather smooth, moderately convex; narrow margin of apex impunctate, occasionally conspicuously paler than disk. Membranes of hemelytra hyaline; veins simple or branched, brown. Connexiva moderately exposed, dark with pale marginal spot in middle of each segment; punctuation close, coarse, pale.

Evaporative areas unicolorous. Small fuscous dots on femora and tibiae least numerous on hind legs. Basal angles of sternites each with black macule; apical angles immaculate. Spiracles concolorous with supporting sclerite.

Broad emargination in posterior margin of pygophore sloping on each side to low median protuberance of varying width (Figs. 27, 28); median protuberance sometimes inapparent from caudal view, rarely absent; posterior pygophoral margin sinuously truncate from dorsal view (Fig. 26). Anterolateral angles of inferior ridge each bearing compressed black denticle oriented diagonally, its anterior limit laterad of posterior limit. Lateral rims of genital cup roughened by low black carinae, these variable in number, directed diagonally cephalad from within cup toward rim; larger carina, mesially concave in profile, located entad and cephalad of row of lesser carinae along each lateral rim. Parameres strongly cupped; oval area of fine denticles on lateral face at apex (Fig. 29). Apex of conjunctiva on each side with or without lightly pigmented spot; lateral diverticulum on each side entirely hyaline (Fig. 30). Large sclerotized cap present at base of penisfilum. Thecal processes short; median thecal lobe weakly developed, lateral thecal lobes absent.



Figs. 25–30. *E. incus*. 25. Head and pronotum in part. 26. Posterior pygophoral margin, dorsal view. 27. Posterior pygophoral margin and inferior ridge, caudal view. 28. Posterior pygophoral margin, caudoventral view. 29. Paramere. 30. Aedeagus, lateral view; conjunctiva (c); diverticulum (d); sclerotized cap (sc); thecal process (tp). Dimensional lines equal 0.5 mm.

Types. Holotype: male, labeled (a) “No. 53, Lima, Peru, IV-1965” (b) “F. Asneros, M. Tello.” Deposited in National Museum of Natural History, Washington, D.C. Type No. 72132. Paratypes: 11 males, 10 females. “Cuenca, Ecuador, June 1939, Lucio Vivar, preying on lep. larva” (♀ LHR); “Peru, Chira Valley, V-1953, on cotton” (♂ NMNH); “Paila, Peru” remainder illegible (♂ NMNH); “Cañete, Mch. 4, 1941, E. J. Hambleton” (♂ LHR); same data except date “Mch. 13, 1941” (♀ NMNH); same data except date “Mch. 10, 1942” (♂ UNLP); same data except date “Mch. 17, 1942” (♀ UNLP); “Cañete, Feb. 11, 1941, E. J. Hambleton, on cotton (♀ NMNH); same data except date “Mch. 17, 1941” (♀ NMNH); same data except date “Mch. 6, 1941” (♂ NR); “No. 23-39, Piura, 31-V-1939, Schaefer Coll,” (2♂♂, ♀ NMNH; ♀ NR); “Piura, Peru, May 1, 1941, E. J. Hambleton, on cotton” (♂ LHR); “Huacachima Yea, E. Escomel” (♂ AMNH); (a) “Lobitos, H. P. Manton” (b) “Brit. Mus., 1939, 489” (3♀♀, 2♂♂ BMNH)

Distribution. Western Peru and southern Ecuador.

Comment. The peculiar humeri will immediately identify most specimens. The male genitalia suggest an affinity with *E. crenator* (F.).

***Euschistus rohus*, new species**

Figs. 31–37

Description. Light brown dorsum usually tinted with red, becoming light castaneous on head and anterior portion of pronotum; head thinly edged in black, anterolateral margins of pronotum and apex of humeri black bordered. Brownish yellow beneath, concolorously punctate. Length 7.9–9.4 mm.

Head 1.8–1.9 mm across eyes, subequal in length; lateral jugal margins sigmoid, tapering to apex; tylus slightly exceeding juga (Fig. 31). Antennae light brown with tiny dark dots on 3 basal segments; each of last 2 segments usually castaneous with pale but not clearly annulated base; basal segment reaching apex of head; length of segments 0.5–0.6, 0.9–1.0, 1.0–1.1, 1.3–1.5, 1.4–1.5 mm.

Pronotum 2.2–2.4 mm long at meson, 2.8–3.2 times as wide at humeri. Anterolateral margins evenly concave, closely and rugosely denticulate; narrow black border toward apex consisting of black punctures, toward humeri involving entire margin. Humeri acutely produced laterad, neither turned forward nor much elevated above disk.

Scutellum 3.0–3.4 mm wide at base, subequal in length; each basal angle with 2 or 3 confluent punctures, scarcely foveate; color and punctuation of apex as on disk. Punctuation of hemelytra darker and stronger on costal margins at base than on disks; impunctate lacuna at distal end of radial vein neither calloused nor differentially colored; membranes lightly fumose, veins simple or branched. Connexiva little or not at all exposed, darker than coria, at least along margin, with small pale marginal spot in middle of each segment; punctuation close, coarse, pale.

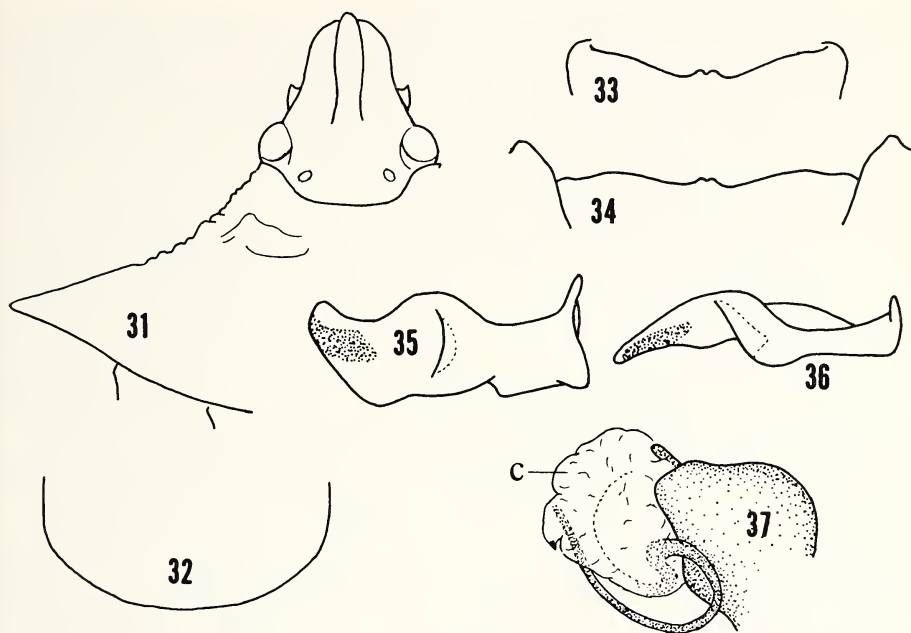
Pleural surfaces of thorax with 5 small black dots as usual for genus; evaporative areas unicolorous. Small fuscous dots scattered on femora and tibiae. Spiracles concolorous with sternites; basal angle of sternites black spotted, apical angles immaculate.

Posterior margin of pygophore convexly arcuate from dorsal view (Fig. 32), sinuously concave from caudal view and sinuously truncate from caudoventral view, a low median minutely notched truncate protuberance apparent from both caudal and caudoventral views (Figs. 33, 34). Small black denticle on each lateral wall of genital cup just visible above paramere. Parameres quite thin apically with reticulated area on lateral surface (Figs. 35, 36). Conjunctiva on each side terminating in hook with acute black apex (Fig. 37); lateral lobes of theca strongly developed, extending posteriorly well beyond median lobe.

Type. Holotype: male, labeled (a) "Paramba, Ecuador" (b) "Collection Rosenberg." Deposited in National Museum of Natural History, Washington, D.C. Type no. 75557. Missing last antennal segment on right, last 2 on left, mesothoracic and metathoracic legs on left, tarsi of these legs on right. Paratypes: 4 males, 4 females. Same data as holotype (♀ LHR); "Cachabé, low c, XII-96 (Rosenburg) (♂♀ BMNH, ♂ UNLP); same data plus second label "Ecuador, Rosenberg, 99-104" (♂ LHR); "Paramba, 3500', II 97, dry season, Rosenberg" (♀ BMNH); "60 K NW Cali, Colombia, 29-VI-1972" (♀ HDE); "Pipe Line Rd, Canal Zone, 22-X-1972, L. H. Rolston" (♂ LHR).

Distribution. Ecuador, Colombia, Panama (Canal Zone).

Comments. This species closely resembles *E. vetus* Rolston from Costa Rica. The



Figs. 31–37. *E. rohus*. 31. Head and pronotum in part. 32. Posterior phygophoral margin, dorsal view. 33. Same, caudal view. 34. Same, caudoventral view. 35. Paramere. 36. Same, rotated 90 degrees. 37. Aedeagus, lateral view, conjunctiva (c). Dimensional lines equal 0.5 mm.

males are readily identified by the genitalia, but the females of these 2 species cannot be separated with confidence. The ranges of these species are not known to overlap, but they may do so in western Panama.

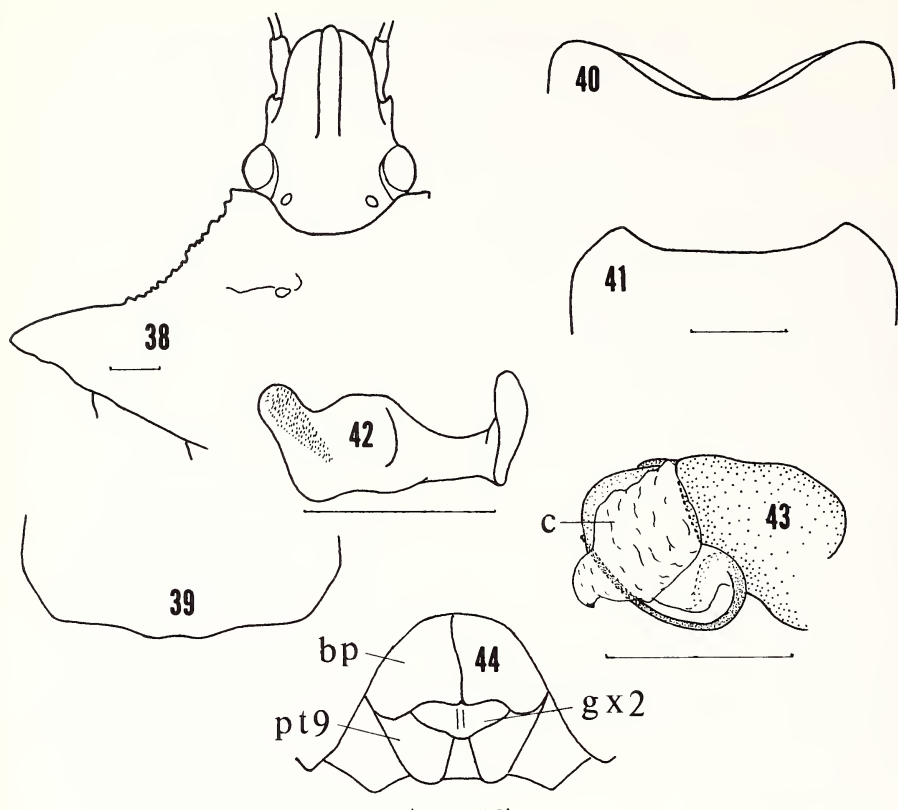
***Euschistus carboneurs*, new species**

Figs. 38–44

Description. Dorsum dark brown to fuscous becoming black on humeri, with apex of scutellum ivory; punctures black, evenly distributed excepting scattered subcalloused spots. Venter brownish yellow, concolorously punctate. Length 9.5–10.7 mm.

Width of head across eyes 1.9–2.0 mm, length subequal. Lateral margins of head tapering sinuously from eyes to rather narrowly rounded apex; tylus a little longer than juga (Fig. 38). Antennae brownish-yellow to fuscous with darker dots on basal or basal 3 segments and pale ring on proximal fourth of last two segments; basal segment reaching apex of head; length of segments 0.6–0.7, 0.9–1.1, 1.3–1.8, 1.4–1.8, 1.4–1.6 mm.

Pronotum 2.3–2.6 mm long at meson, 2.9–3.3 times as wide at humeri. Antero-lateral margins concave from dorsal view, denticulate nearly to base of humeri; denticles closely spaced, black. Humeri acutely produced laterad, apically elevated



Figs. 38–44. *E. carbonerus*. 38. Head and pronotum in part. 39. Posterior pygophoral margin, dorsal view. 40. Posterior pygophoral margin and inferior ridge, caudal view. 41. Posterior pygophoral margin, caudoventral view. 42. Paramere. 43. Aedeagus, lateral view; conjunctiva (c). 44. Genital plates; basal plate (bp); 2nd gonocoxae (gx2); paratergite 9 (pt9). Dimensional lines equal 0.5 mm.

above pronotal disk. Small subcalloused spot near posteromesial margins of each cicatrice little or no paler than cicatrice.

Scutellum as wide as or slightly wider than long, 3.3–3.8 mm across base; a few black punctures in each basal angle forming shallow fovea. Membranes of hemelytra fuscous; veins simple or branched. Connexiva narrowly exposed; punctation dense, pale; small pale spot usually present submarginally in middle of each segment.

Evaporative areas unicolorous. Femora black dotted, more sparsely so than tibiae. Anterolateral and posterolateral angles of abdominal sternites minutely marked in black. Spiracles concolorous with surrounding surface.

Broad emargination in posterior margin of pygophore concave to moderate depth from caudal view (Fig. 40), shallowly concave from caudoventral view (Fig. 41), truncate and slightly sinuous from dorsal view (Fig. 39). Small black denticle on each

lateral wall of genital cup obscured by parameres. Conjunctiva on each side terminating in apically pigmented hook (Fig. 43). Lateral lobes of theca large, extending posterolaterad beyond median lobe. Parameres as in Figure 42.

Basal plates overlapping along basal portion of medial margin; posterior margin sinuous, convexity at lateral angle appressed to basal concavity of 9th paratergites (Fig. 44). Second gonocoxae longitudinally grooved mesially.

Types. Holotype: male, labeled "Brazil, Para, Jacareacanga, Dec. 1968, M. Alvarenga." Deposited in American Museum of Natural History. Paratypes: 6 males, 2 females. Same data as holotype (♀ AMNH, ♂ LHR, ♂ NMNH); same data as holotype except date and collector "Feb. 1969, F. R. Barbosa" (♂ AMNH); "Santarem, Acc. No. 2966" (♂ CMNH, ♂ UNLP); "Rio de Jan. Brazil. Acc. No. 2966" (♀ LHR); "Brazil, Rondonia" on white paper pasted on purple museum label (♂ IRSNB). The last paratype listed and both female paratypes have the binomen hand lettered on the paratype label; it is printed on the other paratype labels.

Distribution. Apparently widely distributed in Brazil, although all but one specimen came from along the Amazon River and one of its tributaries, the Guapore River, which marks part of the eastern Bolivian border.

Comments. This species belongs in a group of six species that are similar in size, appearance and genitalia: *E. atrox*, *E. heros*, *E. nicaraguensis*, *E. agudus*, *E. backhauseni* and *E. carbonerus*. The first three species have dark punctures in the evaporative areas and the last three species have unicolorous evaporative areas. The color of the pronotal denticles, black in *E. carbonerus*, separate this species from *E. agudus* and *E. backhauseni*, both of which have ivory colored denticles. Each of these three species differ somewhat in the shape of the posterior pygophoral margin and parameres (Figs. 14–17, 40, 42).

ACKNOWLEDGMENTS

I am indebted to the following individuals and institutions for the loan of specimens and other assistance relevant to this study: W. R. Dolling (British Museum Natural History); H. Dodge Engleman, Coco Solo, Panamá; Richard C. Froeschern (National Museum of Natural History, Washington, D.C.); Per Lindskog and Per Inge Persson (Naturhistoriska Riksmuseet, Stockholm); Ricardo A. Donderos and Luis de Santis (Universidad Nacional de La Plata, La Plata, Argentina); G. Schmitz (Musée Royal de l'Afrique Central and Institut Royal des Sciences Naturelles de Belgique, Tervuren); Randall T. Schuh (American Museum of Natural History, New York); and G. Wallace (Carnegie Museum of Natural History, Pittsburg).

The following abbreviations are used in the text for paratype depositories: American Museum of Natural History (AMNH); British Museum (Natural History) (BMNH); Carnegie Museum of Natural History (CMNH); H. Dodge Engleman collection (HDE); Institut Royal des Sciences Naturelles de Belgique (IRSNB); Author's collection (LHR); National Museum of Natural History (NMNH); Naturhistoriska Riksmuseet (Stockholm) (NR); Universidad Nacional de La Plata (UNLP).

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Received November 22, 1983; accepted April 10, 1984.